



COPING WITH EMERGENCIES ON THE EUROPEAN INLAND WATERWAYS

by Machiel Lambooj (February 2026)



This guidance note discusses how to deal with emergencies on the major European inland waterways, especially ones involving engine or transmission failure or fire. The focus is on situations where the boat is no longer controllable by the skipper and where there may be large traffic (commercial barges) approaching. It does not deal specifically with MOB (Man Over Board) situations, medical emergencies, grounding, taking on water or collisions, though some principles such as alerting nearby vessels and calling for assistance apply equally to these. Ensure that other crew members are also aware of the basics of this guidance note, in case the skipper becomes incapacitated or is busy dealing with repairs.

Please email any corrections or updates to eiws-editor@theca.org.uk.

First: reduce the risk!

Unexpected engine stops while cruising, although not occurring frequently, are often caused by issues with the diesel flow into the engine or electrical systems (battery dying, incorrect cabling or fusing). To prevent this from happening:

- ◆ Make sure that engine and other systems are regularly checked and are maintained before you start the cruising season.
- ◆ Exchange your fuel filters and impellers every season for new ones. Also carry adequate spares.
- ◆ Check all electrical wiring in the boat for signs of chafing and melting. Install the correct fuses.
- ◆ Make sure it is possible to monitor exhaust water flow or temperature as the primary early indicator of a blockage of the cooling water intake (and know what is normal/abnormal).
- ◆ Ensure you know whether your batteries need topping off with distilled water (no tap water!) and if so, check the levels regularly. Make it part of your pre-season checks. Can you check battery status each time before departure? Rotten egg smell: toxic gas and explosion danger!
- ◆ Check diesel levels before departing. Make this part of your daily checklist.
- ◆ Ensure you only fill up with good quality, fresh diesel
- ◆ Something may get stuck around your propeller and stop the engine. Consider installing a rope cutter.
- ◆ To reduce risk of fire, keep the engine space clean, dry and well-ventilated and fix any fuel, oil or exhaust leaks immediately
- ◆ Check hoses, clamps and filters and ensure insulation on hot components is in good condition
- ◆ Secure batteries and wiring, using correct fusing and marine-grade connections and eliminating chafe and loose terminals



FAME-free fuel is best @Machiel Lambooj

- ◆ Avoid overloading electrical circuits and never leave chargers or portable lithium devices operating unattended
- ◆ Keep combustible materials (oily rags!) out of the engine compartment and away from hot surfaces
- ◆ Carry out regular visual and smell checks before and during operation, and investigate any unusual heat, smoke or odour at once
- ◆ Brief crew and passengers on basic fire and evacuation actions

Bad fuel causes slurry in your tanks and potentially blocks filters or fuel lines. Preferably refuel at stations with a high turnover and thus fresh diesel. If available, use diesel without FAME added (B0, or GTL/HVO if your boat engine can use this). Avoid small fuel stations with rarely-used above ground tanks. It is good practice to drain primary and secondary fuel filters of any water (and fuel tank sump if you can) before venturing on major waterways. If you suspect that you have bad fuel on board (or have no option other than refuelling in a remote location), add Marine 16 or Grotamar to your diesel to help break down any contaminants. If you cruise on waterways with heavy traffic wash or waves, there is a risk that slurry that is normally on the bottom of your tank will be sucked into your fuel lines.

Second: be prepared!

If the worst happens, the less time you have to spend hunting for emergency equipment or information to help identify the fault the better. In particular, it is advisable to have the following correctly installed or close to hand:

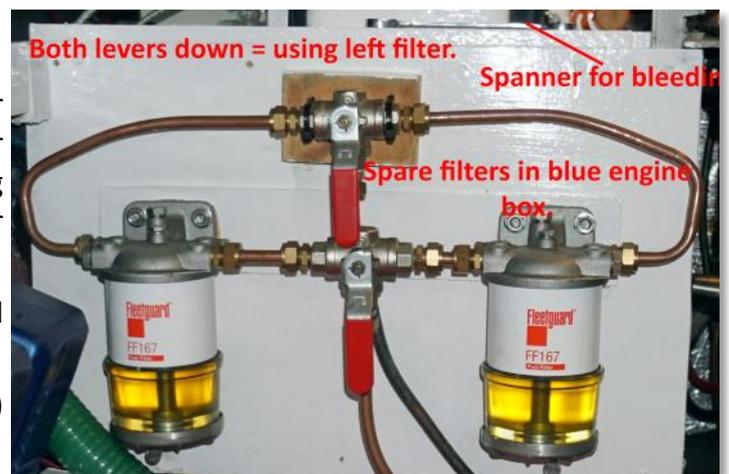
- ◆ All the manuals of key equipment on board that in the event of failure would make it impossible to continue cruising
- ◆ Dealer list of your engine manufacturer on board or quickly accessible online
- ◆ Anchor suitable for your boat. Check (and practice!) that it can be deployed rapidly in an emergency.
- ◆ Basic tool kit: check manuals to see whether any specific tools are required
- ◆ In-date, certified fire extinguishers, easily accessible near entrance/exits. Make sure you know how to operate them and make sure they are in working order (in some countries, they need to have a regular check and valid certificate as proof!). A Fire Safety Stick is useful as an additional tool—though it cannot replace a legally-required fire extinguisher. Fire extinguishers should at least cover Class A (solids) and Class B (flammable liquids) and be suitable for use on electrical equipment. If two are carried, place one near the engine space and one in the living area. Some larger boats have a gas-based fire suppression system in the engine room. Leave the engine room immediately if it triggers as it replaces the oxygen you (and the fire) need to breathe!
- ◆ Fire blanket (primarily for use in the kitchen, but can also be used to wrap a burning telephone or other electrical device to take it outside or throw it overboard). Only do this if it is an initial, small fire, the device can easily fit in the fire blanket and it is safe to handle it.
- ◆ Smoke detectors on the ceiling in engine room and in corridors and living areas (linked if possible)
- ◆ Temperature detector and alarm in the engine room and/or gauge at the helm
- ◆ CO detector in living areas, at 'mouth' height
- ◆ Basic first aid kit
- ◆ Lifejackets, properly serviced and certified, for all on board



Modern gas suppression system ©Machiel Lambooi

If a fire breaks out while underway in the fairway, immediately alert all persons on board, put on lifejackets, reduce risk by stopping the engine and isolating fuel and electrics if it is safe to do so and keep hatches to the engine space closed to limit oxygen intake. Avoid inhaling toxic smoke and make a prompt call for assistance (112 for fire brigade) if there is any doubt about your ability to control the fire. Only attack a small, contained fire by using the correct extinguisher or a fire blanket (**never** open the engine hatch as fresh oxygen may worsen the fire or even cause an explosion). Maintain a clear escape route and watch for re-ignition: if the fire does not clearly diminish within seconds, if smoke becomes dense, or if the fire involves fuel, batteries (especially Li-ion house batteries cooking off) or inaccessible spaces, then cease firefighting, prepare to abandon to a safe location clear of traffic, and prioritize personal safety over that of the vessel.

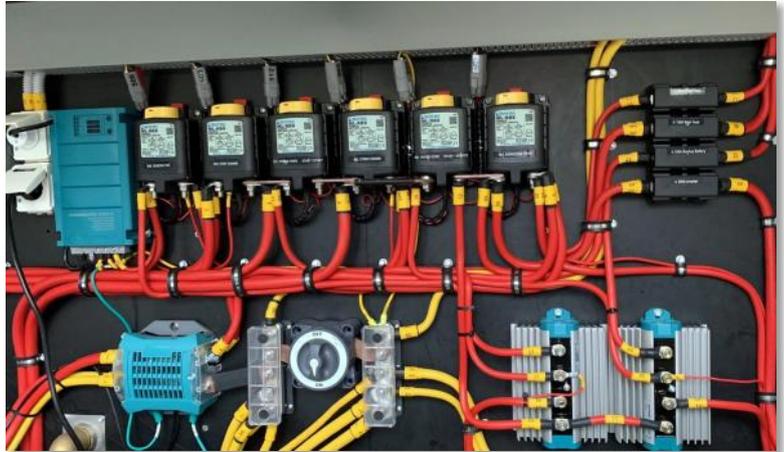
- ◆ A VHF transceiver (fixed or portable) with ATIS enabled and on the updated channel set (VDES channels are no longer usable; see separate CA [Guidance Note on VHF and ATIS](#)). A portable ATIS compatible handheld VHF radio is not expensive and very useful, especially if your main VHF no longer works due to electrical issues (note that handheld VHF use is not allowed in Germany – although in a real emergency that disables your main VHF set no-one is likely to arrest you!).
- ◆ Consider on large open water an EPIRB and/or PLB (both preferably with AIS)
- ◆ Portable flashlight
- ◆ A charged mobile phone and a power bank to recharge your phone (and make sure the power bank itself is always charged)
- ◆ Towline with a custom-made V-bridle for attachment to your boat's port and starboard bollard, with a length of 3-4 times the length of your boat. The length of the bridle: 1.5-2x the beam of the boat.
- ◆ Extra lines (at least one long line, say 20m)
- ◆ Lifebuoy or life-ring
- ◆ A means of paralleling battery banks. In the event the starter battery dies, you need to be able to connect the house batteries to the starter circuit with a parallel switch or even with a standard (car) charging cable (ensure correct connections to avoid short circuits!). With twin engines, there is often a parallel switch between both starter batteries.
- ◆ Spare fuel filter(s) and impeller for your engine
- ◆ Sharp cutting knife (marine rescue knife and/or serrated bread knife to cut through rope or debris around your propeller) and simple diving equipment (mask, snorkel) to check your propeller
- ◆ Spare throttle cable (if your boat is equipped with a conventional throttle linkage)
- ◆ Spare belts for your (alternator/engine) equipment
- ◆ Marine 16 or Grotamar to dissolve deposits in your fuel that may clog fuel lines: this can be added as a precaution when you fill up with potentially contaminated fuel (or with B7 diesel and expect that it will remain unused for a longer period of time), but also in an emergency in a large dose to attempt to dissolve the deposits that clog the system (see the manufacturer's instructions on the bottle).
- ◆ Distilled water (if your batteries are fillable; check manuals)
- ◆ Good whistle or horn on a portable air cylinder (working independently from onboard power)
- ◆ Duct tape, watertight tape and waterproof flexible putty to carry out emergency repairs



Dual 'switchover' fuel filters for blockages @J Littlewood

- ◆ Black anchor ball (available in collapsible form)
- ◆ A chart or book with addresses of harbours and maritime businesses in the cruising area. Consider the **Waterkaarten.app** (for the Netherlands and Belgium, and increasingly also for other inland destinations). See: <https://waterkaarten.app/en>. The app requires an annual subscription which is also available for short periods of time.

- ◆ In areas with water plants or with debris in the water (including bags), there is a risk that the cooling water intake hose or filter becomes clogged, which can reduce the flow and cause the engine to overheat. Check and clean the weed filter(s) daily before departure. If the intake line becomes blocked, plan how you can clear it from the inside—for example, using a deck wash pump or the freshwater system. Some skippers find that a dinghy pump, a compressed air horn or even a stiff length of plastic pipe will clear hose blockages—ensure you have a suitable hose/pipe for this purpose and test beforehand to confirm that it works properly. Perform these remedial actions only when the boat is securely stopped and the engine is switched off.



Neat electrical cabling reduces fire risks ©Machiel Lambooij

- ◆ Familiarise yourself with fuel shutoffs, battery isolators and engine ventilation closures and how to operate them quickly in smoke or darkness. Make sure other crew members are also aware.
- ◆ Check your boat insurance for cover of the costs of towing, rescue, repairs and repatriation. If you have an older boat prone to technical issues, or are unable to carry out any repairs yourself, consider subscribing to a local boating breakdown service where available (first check their exact conditions!). In the Netherlands: **Botenwacht** (<https://botenwacht.nl> - not in English, use a translator). This operates only on inland waterways, not in the Wadden Islands. They arrange a mechanic; some labour costs are covered, with materials costs to be paid to the mechanic.

Third: get the boat to a safer place!

The most important step in an emergency is to move your boat if possible to a safer place out of the main fairway channel to reduce danger to yourself, crew and other vessels:

- ◆ If propulsion is lost, prepare the anchor early and deploy it as soon as it can be done safely— especially in current or near bridges or other structures— unless you can get the boat to safety in other ways (in which case, just prepare the anchor). **Before going on deck, don a life vest.**
- ◆ If steering fails but propulsion remains, reduce speed immediately and use thrusters if available. Again, prepare your anchor.
- ◆ Attempt to leave the main fairway channel immediately. In the event of full engine failure, try to use your bow or stern thruster if still working to get to the side. If in a river current, try to use the current over your rudder to get you out of the fairway.
- ◆ Ask for assistance from passing vessels. Passing pleasure craft are often willing to assist.
- ◆ Deploy fenders on all sides of the boat (relevant for assistance and in case of collisions). Some boats prefer to leave them in place while cruising as it's one less thing to worry about.
- ◆ Check depth outside the main fairway and (if tidal) the state of tide. It is ideal if you can moor on a quay, accessible to emergency services or repair crews by car.
- ◆ If not, anchor just outside the fairway, or if that is also impossible, just at the side of the fairway. Anchoring is especially important if you are in a current and you have no control of your boat.

Fourth: alert oncoming vessels!

If your vessel is no longer under effective control, the next step is to ensure nearby vessels are alerted to prevent collisions:

- ◆ An AIS-transponder (AIS-B, SOTDMA) is very advisable on major waterways: it transmits your position and most commercial vessels will see you.
- ◆ Broadcast a warning on VHF 10 or on a specific VTS channel if you are in a VTS area (blue signs or signs with a red border and a VHF channel on it; or check your charts). On certain large open waters in the Netherlands only (see map on next page), repeat on VHF 16 to attract the attention of the coast guard.
- ◆ Determine your exact position (name of waterway and exact location on that waterway, PK/KM number, or GPS coordinates). You can check your charts or electronic charts or, if not available, use your phone to determine your position.

On all inland waterways of Continental Europe, a VHF radio needs to have ATIS enabled. If ATIS is switched on, DSC alerts do not work. Only vessels immediately arriving from sea or departing from sea can use DSC until they reach their first harbour. If you use DSC on these waters and there is coast guard coverage, your alert will be received by the coast guard and/or passing sea going vessels. Commercial barges and other inland vessels will not receive it. Therefore, you must also broadcast a pan-pan or mayday on VHF.

- ◆ Clearly say **'Pan-Pan, Pan-Pan, Pan-Pan'** (urgent, but no imminent danger) or **'Mayday, Mayday, Mayday,'** (imminent danger) followed by the **name of your vessel**, your **exact position**, the **nature of the problem (not in command, in the fairway)**, what **assistance you require**, and the **number of persons on board**, then await a response. Repeat if no reply is received. If the situation escalates from urgency to danger, upgrade from **Pan-Pan** to **Mayday** immediately.



- ◆ You might also ask a crew member to call 112 ***Big commercials need ample warning ©Gordon Knight*** (all countries) and ask for the water police, the fire brigade or ambulance depending on the type of emergency.
- ◆ If kept on board, use warning flares (red handheld flare or—in daylight only—orange smoke flare)
- ◆ Alternatively, station a crew member outside to wave their arms up and down in a semi-circle to oncoming vessels (in the dark with a flashlight).
- ◆ Sound your horn when you believe an oncoming vessel may not have seen you. If you cannot see the skipper he may not see you (blind spot). If no electricity, use a whistle or a horn on a portable air cylinder.

Preferably, use the CEVNI sound signals:

- ⇒ Attention / general warning: 1 long blast (about 4 seconds).
- ⇒ Unable to manoeuvre: 4 short blasts (about 1 second each, with short pauses in between).
- ⇒ Distress: Repeated long blasts (about 4 seconds each).
- ⇒ Imminent danger of collision: A series of very short blasts (short bursts of about ¼ second each, repeated as necessary until the danger is understood).
- ◆ After alerting other vessels, ensure that a constant watch is kept on the surrounding area. If the skipper leaves to resolve issues, ensure that someone else is instructed to do this and alert the skipper if boats are approaching.

When arranging a tow, ensure that skipper and crew:

- ◆ Wear lifejackets on deck when handling lines, anchors, or fenders during an incident
- ◆ Avoid standing in bights of lines or near loaded towlines
- ◆ Keep hands and feet clear during alongside towing or passing assistance

BEFORE ACCEPTING ASSISTANCE FROM ANY COMMERCIAL SERVICE PROVIDER, AGREE ON A PRICE AND GET THAT IN WRITING!

There are laws that allow for default salvage remuneration, which may be a percentage of the value of your boat unless you have agreed something else. Also, ask what travel costs you will have to bear for the services provider to get to the agreed place. Do not rely on statements that 'your insurance company will pay'. You may not be (fully) covered, have a deductible, may need to ask for prior approval, or the insurance company may simply refuse to cover a fee they consider excessive. If you are able to reach your insurance company and obtain permission before agreeing to a potentially costly towing or repair contract, that is obviously preferable as this avoids arguments afterwards when you reclaim the costs.

USEFUL CONTACTS IF THERE IS NO RISK TO LIFE

NETHERLANDS

Meldkamer (reporting centre) Rijkswaterstaat (main fairway management): 0800-8002 (24/7)

BELGIUM

Vlaanderen (Flemish speaking part)

RIS-reporting centre (24/7 information & incidents): 0800 30 440 or +32 78 055 440

Wallonia (French speaking part):

Waterways hotline (24/7): +32 81 219 555

FRANCE

National 'urgence sur le réseau' number: 0800 863 000 (or general number +33 3 21 63 24 24 – office hours).

GERMANY

Revierzentralen (River Information Centres), which are staffed round-the-clock and handle traffic information, hazard messaging and initial incident reporting via VHF. Alternatively, call the water operator (WSA; Wasserstrassen- und Schifffahrtsamt) of the region where you are cruising. There are many, so search online.

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Version: February 2026

